

10/031044

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No.: RTSP-0252  
Inventors: Bennett et al.  
Serial No.: Not Yet Assigned  
Filing Date: Herewith  
Examiner: Not Yet Assigned  
Group Art Unit: Not Yet Assigned  
Title: Antisense Modulation of SHP-2 Expression

#2 / I.D.S.

"Express Mail" Label No. EV001201159US  
Date of Deposit January 14, 2002

I hereby certify that this paper is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Assistant Commissioner for Patents, Box PCT, Washington, D.C. 20231.

By Jane Massey Licata  
Typed Name: Jane Massey Licata, Reg. No. 32,257

Assistant Commissioner for Patents  
Washington, DC 20231

Sir:

INFORMATION DISCLOSURE STATEMENT

Pursuant to 37 C.F.R. §1.56 and in accordance with 37 C.F.R. §§1.97-1.98, information relating to the above-identified application is hereby disclosed. Inclusion of information in this statement is not to be construed as an admission that this information is material as that term is defined in 37 C.F.R. §1.56(b).

(XX) In accordance with §1.97(b), since this Information Disclosure Statement is being filed either within three months of the filing date of the above-identified

application, within three months of the date of entry into the national stage of the above identified application as set forth in \$1.491, or before the mailing date of a first Office Action on the merits of the above-identified application, no additional fee is required.

- ( ) In accordance with \$1.97(c), this Information Disclosure Statement is being filed after the period set forth in \$1.97(b) above but before the mailing date of either a Final Action under \$1.113 or a Notice of Allowance under \$1.311, therefore:
  - ( ) Certification in Accordance with \$1.97(e) is set forth below; or
  - ( ) The fee of \$180.00 as set forth in \$1.17(p) is attached.
- ( ) In accordance with \$1.97(d), this Information Disclosure Statement is being filed after the mailing date of either a Final Action under \$1.113 or a Notice of Allowance under \$1.311 but before the payment of the Issue Fee, therefore included are: Certification in Accordance with \$1.97(e); Petition Requesting Consideration of the Information Disclosure Statement; and the fee of \$130.00 as set forth in \$1.17(i)(1).
- ( ) Copies of each of the references listed on the attached Form PTO-1449 (modified) are enclosed herewith.
- (XX) In accordance with \$1.98(d), copies of some or all of the references listed on the attached Form PTO-1449 (modified)

are not enclosed herewith because they were previously submitted to the U.S. Patent and Trademark Office in prior application Serial No. 09/358,683, filed July 21, 1999, for which a claim for priority under 35 U.S.C. §120 has been made in the instant application.

Please charge any deficiency or credit any overpayment to Deposit Account No. 50-1619. This form is submitted in duplicate.

( ) The relevance of the listed references in a foreign language is as stated in the specification at pages @@.

(xx) All listed references are in the English language.

Respectfully submitted,

*Jane Massey Licata*

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Date: January 14, 2002

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Form PTO-1449 Modified		Docket No. RTSP-02525	Serial No. 10/0310 Not Yet Assigned
List of Patents and Publications Cited by Application (Use several sheets if necessary)		Applicant Bennett et al.	
		Filing Date Herewith	Group Not Yet Assigned
U.S. Department of Commerce Patent and Trademark Office			
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
	AA	Ahmad et al., A widely expressed human protein-tyrosine phosphatase containing src homology 2 domains, Proc. Natl. Acad. Sci. U. S. A., 1993, 90:2197-2201	
	AB	Bastien et al., Cloning, expression and mutational analysis of SH-PTP2, human protein-tyrosine phosphatase, Biochem. Biophys. Res. Commun., 1993, 196:124-133	
	AC	Bennett et al., Protein-tyrosine-phosphatase SHPTP2 couples platelet-derived growth factor receptor beta to Ras, Proc. Natl. Acad. Sci. U. S. A., 1994, 91:7335-7339	
	AD	Bone et al., SHP1 and SHP2 protein-tyrosine phosphatases associate with betac after interleukin-3-induced receptor tyrosine phosphorylation. Identification of potential binding sites and substrates, J. Biol. Chem., 1997, 272:14470-14476	
	AE	Freeman et al., Identification of a human src homology 2-containing protein-tyrosine-phosphatase: a putative homolog of Drosophila corkscrew, Proc. Natl. Acad. Sci. U. S. A., 1992, 89:11239-11243	
	AF	Huber et al., The carboxyl-terminal region of biliary glycoprotein controls its tyrosine phosphorylation and association with protein-tyrosine phosphatases SHP-1 and SHP-2 in epithelial cells, J. Biol. Chem., 1999, 274:335-344	
	AG	Kimura et al., Syk-independent tyrosine phosphorylation and association of the protein tyrosine phosphatases SHP-1 and SHP-2 with the high affinity IgE receptor, J. Immunol., 1997, 159:4426-4434	
EXAMINER		DATE CONSIDERED	

Form PTO-1449 Modified		Docket No. RTSP-0252	Serial No. <b>10/0310</b> No. 10/0310 Assigned
List of Patents and Publications Cited by Application (Use several sheets if necessary)		Applicant Bennett et al.	
		Filing Date Herewith	Group Not Yet Assigned
U.S. Department of Commerce Patent and Trademark Office			
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
	AH	Kuhne et al., Dephosphorylation of insulin receptor substrate 1 by the tyrosine phosphatase PTP2C, <i>J. Biol. Chem.</i> , 1994, 269:15833-15837	
	AI	Manes et al., Concerted activity of tyrosine phosphatase SHP-2 and focal adhesion kinase in regulation of cell motility, <i>Mol. Cell. Biol.</i> , 1999, 19:3125-3135	
	AJ	Neel, Structure and function of SH2-domain containing tyrosine phosphatases, <i>Semin. Cell. Biol.</i> , 1993, 4:419-432	
	AK	Oh et al., Regulation of early events in integrin signaling by protein tyrosine phosphatase SHP-2, <i>Mol. Cell. Biol.</i> , 1999, 19:3205-3215	
	AL	Olcese et al., Human and mouse killer-cell inhibitory receptors recruit PTP1C and PTP1D protein tyrosine phosphatases, <i>J. Immunol.</i> , 1996, 156:4531-4534	
	AM	Pazdrak et al., Src homology 2 protein tyrosine phosphatase (SHPTP2)/Src homology 2 phosphatase 2 (SHP2) tyrosine phosphatase is a positive regulator of the interleukin 5 receptor signal transduction pathways leading to the prolongation of eosinophil survival, <i>J. Exp. Med.</i> , 1997, 186:561-568	
	AN	Pei et al., Differential functions of the two Src homology 2 domains in protein tyrosine phosphatase SH-PTP1, <i>Proc. Natl. Acad. Sci. U. S. A.</i> , 1996, 93:1141-1145	
	AO	Zhang et al., p85 subunit of PI3 kinase does not bind to human Flt3 receptor, but associates with SHP2, SHIP, and a tyrosine-phosphorylated 100-kda protein in Flt3 ligand-stimulated hematopoietic cells, <i>Biochem. Biophys. Res. Commun.</i> , 1999, 254:440-445	
	AP	Zhang, Protein-tyrosine phosphatases: biological function, structural characteristics, and mechanism of catalysis, <i>Crit. Rev. Biochem. Mol. Biol.</i> , 1998, 33:1-52	
EXAMINER		DATE CONSIDERED	

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<b>Form PTO-1449 Modified</b>		Docket No. <b>RTSP-0252</b>	Serial No. <b>10/031044</b> Not Yet Assigned
List of Patents and Publications Cited by Applicant (Use several sheets if necessary)		Applicant <b>Bennett et al.</b>	
		Filing Date <b>Herewith</b>	Group <b>Not Yet Assigned</b>
U.S. Department of Commerce			
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
	AQ	Agrawal S., "Antisense Research and Application-Antisense Oligonucleotides: A New Therapeutic Principle", <i>Chemical Reviews</i> <b>1990</b> 90(4):542-584	
	AR	Branch A.D., "A good antisense molecule is hard to find", <i>TIBS</i> <b>1998</b> 45-50	
<b>EXAMINER</b>		<b>DATE CONSIDERED</b>	

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Form PTO-1449 Modified	Docket No.	Serial No.
List of Patents and Publications Cited by Application (Use several sheets if necessary)	RTSP-0252	10/031044
U.S. Department of Commerce Patent and Trademark Office	Applicant	Not Yet Assigned
	Bennett et al.	
	Filing Date	Group
	Herewith	Not Yet Assigned

## U.S. PATENT DOCUMENTS

Examiner's Initial		Document No.	Date	Name	Class	Subclass
	AA	5,831,009	11/03/1998	Ullrich et al.	530	350
	AB	5,589,375	12/31/1996	Ullrich et al.	435	240.2
	AC					
	AD					
	AE					
	AF					
	AG					
	AH					
	AI					
	AJ					
	AK					
	AL					
	AM					
	AN					

## FOREIGN PATENT DOCUMENTS

Examiner's Initial		Document No.	Date	Country	Translation YES	NO
	AO					
	AP					
	AQ					
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